



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,025	01/14/2004	Hiroshi Urano	HGM-124-A	3269
21828	7590	05/03/2005	EXAMINER	
CARRIER BLACKMAN AND ASSOCIATES 24101 NOVI ROAD SUITE 100 NOVI, MI 48375			MCMAHON, MARGUERITE J	
			ART UNIT	PAPER NUMBER
			3747	

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/757,025	<b>Applicant(s)</b> URUNO ET AL.	
	<b>Examiner</b> Marguerite J. McMahon	<b>Art Unit</b> 3747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/2/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Objections***

Claims 7 and 12 objected to because of the following informalities: In lines 3 and 4 of claims 7 and 12 "said intake chamber" should be --said intake plenum--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 8, 9, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Glovatsky et al (6,186,106). Note an intake plenum 50 with runners 54 extending out to all of the cylinder bores. A plurality of electrical parts 102, 104, 114, etc (see Figures 3 and 4) comprising an engine control module and wires (see column 3, lines 24-38) are disposed around said intake plenum 50 and are covered with a one-piece shield cover 112 attached to the engine body in such a manner as to cover at least part of said intake plenum. The intake manifold is considered to be part of the engine body.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 3747

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glovatsky et al (6,186,106) in view of Uchida (5,630,386). Glovatsky et al show everything except each of the runners comprising connecting pipes having outwardly flared pickup ends, each runner comprising an arcuately curved intake pipe, and each connecting pipe curving rearwardly in the plenum. Uchida teaches that it is old in the art to employ runners comprising connecting pipes having outwardly flared pickup ends, each runner comprising an arcuately curved intake pipe, and each connecting pipe curving rearwardly in the plenum. It would have been obvious to one of ordinary skill in the art to modify Glovatsky et al by employing runners comprising connecting pipes having outwardly flared pickup ends, each runner comprising an arcuately curved intake pipe, and each connecting pipe curving rearwardly in the plenum, in order to improve flow characteristics of the intake air flowing through the runners.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Glovatsky et al (6,186,106) in view of Uchida (5,630,386) as applied to claims 3-5 above, and further in view of Brackett (5,560,327). Glovatsky et al in view of Uchida show everything except the engine having a configuration wherein the cylinder bores are opposed to each other and sandwiching a crankshaft, which is supported on a crankcase, and wherein the intake plenum 54 is disposed above said crankcase (see Figure 1A). Brackett teaches that it is old in the art to utilize an engine configuration wherein the cylinder bores are opposed to each other and sandwiching a crankshaft, which is supported on a crankcase, and wherein the intake plenum is disposed above

Art Unit: 3747

said crankcase. It would have been obvious to one having ordinary skill in the art to modify Glovatsky et al in view of Uchida by providing an opposed cylinder bore engine configuration, as shown by Brackett, as such an engine configuration is an alternative equivalent to the Vee-type engines utilized by Glovatsky et al and Uchida, and is conventional in the engine art.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Glovatsky et al (6,186,106) in view of Croft et al (3,814,069). Glovatsky et al show everything except a sensor for detecting a condition in said intake plenum extending from the control unit through a side wall into the intake plenum. Croft et al teach that it is old in the art to employ a pressure sensor 29 extending through a side wall into the intake plenum 12 (see Figures 1 and 2). It would have been obvious to one of ordinary skill in the art to modify Glovatsky et al by employing a pressure sensor extending from the control unit through a side wall into the intake plenum, in order to detect the pressure in the intake plenum, thus providing improved control information to the control unit.

Claim 10 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Glovatsky et al ((6,186,106). Glovatsky et al show everything except employing an air cleaner. It would have been obvious, if not inherent, that an air cleaner housing operatively connected to the throttle body would be utilized, in order to filter the incoming air, as is conventional, in the engine art.

Claims 11, 13, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glovatsky et al (6,186,106) in view of Brackett (5,560,327).

Art Unit: 3747

Glovatsky et al show everything except the engine having a configuration wherein the cylinder bores are opposed to each other and sandwiching a crankshaft, which is supported on a crankcase, and wherein the intake plenum is disposed above said crankcase. Brackett teaches that it is old in the art to utilize an engine configuration wherein the cylinder bores are opposed to each other and sandwiching a crankshaft, which is supported on a crankcase, and wherein the intake plenum 54 is disposed above said crankcase (see Figure 1A). It would have been obvious to one having ordinary skill in the art to modify Glovatsky et al in view of Uchida by providing an opposed cylinder bore engine configuration, as shown by Brackett, as such an engine configuration is an alternative equivalent to the Vee-type engines utilized by Glovatsky et al and Uchida, and is conventional in the engine art.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Glovatsky et al (6,186,106) in view of Brackett (5,560,327) as applied to claim 11 above, and further in view of Croft et al (3,814,069). Glovatsky et al in view of Brackett show everything except a sensor for detecting a condition in said intake plenum extending from the control unit through a side wall into the intake plenum. Croft et al teach that it is old in the art to employ a pressure sensor 29 extending through a side wall into the intake plenum 12 (see Figures 1 and 2). It would have been obvious to one of ordinary skill in the art to modify Glovatsky et al in view of Brackett by employing a pressure sensor extending from the control unit through a side wall into the intake plenum, in order to detect the pressure in the intake plenum, thus providing improved control information to the control unit.

Art Unit: 3747

Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glovatsky et al (6,186,106) in view of Brackett (5,560,327) as applied to claims 11 and 13 above, and further in view of Uchida (5,630,386). Glovatsky et al in view of Brackett show everything except each of the runners comprising connecting pipes having outwardly flared pickup ends, each runner comprising an arcuately curved intake pipe, and each connecting pipe curving rearwardly in the plenum. Uchida teaches that it is old in the art to employ runners comprising connecting pipes having outwardly flared pickup ends, each runner comprising an arcuately curved intake pipe, and each connecting pipe curving rearwardly in the plenum. It would have been obvious to one of ordinary skill in the art to modify Glovatsky et al in view of Uchida by employing runners comprising connecting pipes having outwardly flared pickup ends, each runner comprising an arcuately curved intake pipe, and each connecting pipe curving rearwardly in the plenum, in order to improve flow characteristics of the intake air flowing through the runners.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marguerite J. McMahon whose telephone number is 703-308-1956. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yuen Henry can be reached on 703-308-1946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**MARGUERITE MCMAHON**  
**PRIMARY EXAMINER**